

Internal Jugular Vein Aneurysm Presenting after Emesis Episode

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Abstract

75% percent of all jugular vein aneurysms cases are diagnosed in children. The authors present an unusual case of a voluminous internal jugular vein aneurysm in a 40 year-old woman. The patient developed a progressive enlarging cervical bulging after an intense emesis episode five years before. The aneurysm was managed by cervicotomy and jugular vein ligation and the patient had an uneventful postoperative recovery. The authors provide a brief review of diagnosis aspects and treatment options for this disease.

Keywords: Jugular vein aneurysm; Jugular vein phlebectasia; Venous aneurysm

Introduction

Proper classification of venous malformations has not been established and the applied terms for venous dilatation lesions are variable [1]. Although some authors frequently use “phlebectasia” to describe fusiform dilatations and “aneurysm” for saccular ones, these terms are often used as synonyms [1].

Even though venous aneurysms occur equally between genders and are seen at any age, the vast majority of jugular vein aneurysms (JVAs) cases, about 75%, are diagnosed in children [1-3].

Case Report

A 40-year-old woman developed a right cervical mass after an intense emesis episode five years before presenting to our institution. The mass enlarged over the years and when the patient sought for treatment she described aesthetic complaints and a sensation like the bulge “was about to rupture” during situations associated with increased central venous pressure such as exercises and defecation. The patient denied previously pregnancies and comorbidities.

Physical examination demonstrated a large, soft, painless and delimited mass at the right cervical region. The bulge presented marked volume increase during Valsalva maneuver (which was easily observed since the patient was not obese) and nor thrill or murmur were detectable.

A computed tomography (CT) angiography revealed a right internal jugular vein aneurysm with a 4.3 cm diameter (Figures 1 and 2).

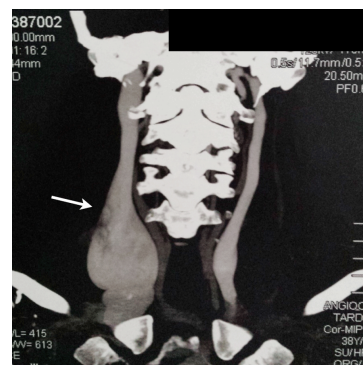


Figure 1: Angio TC image. The arrow points the right internal jugular vein aneurysm.

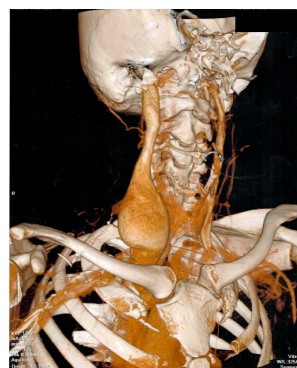


Figure 2: Angio TC image showing the right internal jugular vein aneurysm.

The progressive growth, presence of symptoms and aesthetic complains were all factors that indicate the need for intervention.

Surgical treatment was carried under general anesthesia; the procedure consisted of cervicotomy (10 cm length parallel to the sternocleidomastoid muscle) and jugular vein ligation proximally and distally to the aneurysm limits (Figure 3). It was necessary to dissect and ligate the internal jugular vein just behind the subclavian artery; this maneuver became easier when the operative table was put on proclive position as the diminished central venous pressure reduced the jugular diameter.

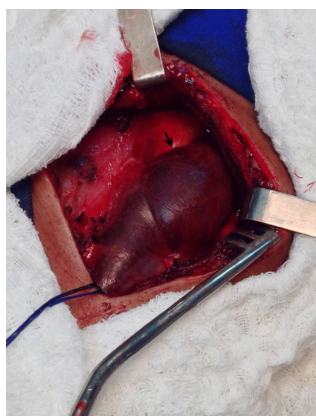


Figure 3: Intraoperative photo. The arrow points the right internal jugular vein aneurysm.

Surgery and postoperative recovery were uneventfully and the patient was discharged on the second postoperative day.

The patient remained on outpatient treatment for 6 months without new complaints and then was discharged.

Discussion

JVAs most commonly present as soft, painless, compressible neck masses that enlarge during Valsalva maneuver [2,3,4,5]. Differential diagnosis includes cystic mediastinal masses, apical lung masses, laryngoceles,

because of JVAs rare incidence, treatment guidelines are not clearly established [1,3,4].

As JVAs rarely present such complications, they should be operated only if symptomatic, enlarging, disfiguring or if either spontaneous or trauma related rupture is a concern [

Several different surgical treatments have been described. Operative intervention may consist of tangential excision and lateral venorrhaphy or excision with or without interposition grafting but most commonly, simple vein ligation and resection have been performed for unilateral lesions, with an associated low incidence of complication [2-4]. The largest surgical experience documented a series of interventions on 46 patients with internal JVA, in which 32 patients underwent ligation. Three of these patients experienced subsequent symptomatic intracranial hypertension, with one instance of associated pontine infarct. All three cases resolved with medical therapy, and no other complications have been reported in the literature [3]. Although endovascular procedures have been described for venous dilatations and arterio-venous fistulas, because the patient presented low risk for an open surgery and the lesion was superficial an endovascular option was not considered [8].

In conclusion, JVAs are rare entities that should be correctly differentiated from other cervical bulges and, when indicated, surgical management should be performed to prevent complications such as venous thrombosis, pulmonary embolism and aneurysm rupture.

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